REMARKS

The Official Action mailed August 22, 2006, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on November 26, 2003; March 4, 2004; August 18, 2005; and June 8, 2006.

A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 1-7, 9-15, 17-23, 25-31, 33-39 and 43-51 were pending in the present application prior to the above amendment. Claims 1-7, 9-15, 17-23, 25-31, 37 and 38 have been withdrawn from consideration by the Examiner (Box 4a, Office Action Summary, Paper No. 20060815). Independent claims 33, 43 and 48 have been amended to better recite the features of the present invention, and new claims 52-54 have been added to recite additional protection to which the Applicant is entitled. Accordingly, claims 33-36, 39 and 43-54 are currently elected, of which claims 33, 43, 48 and 52 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

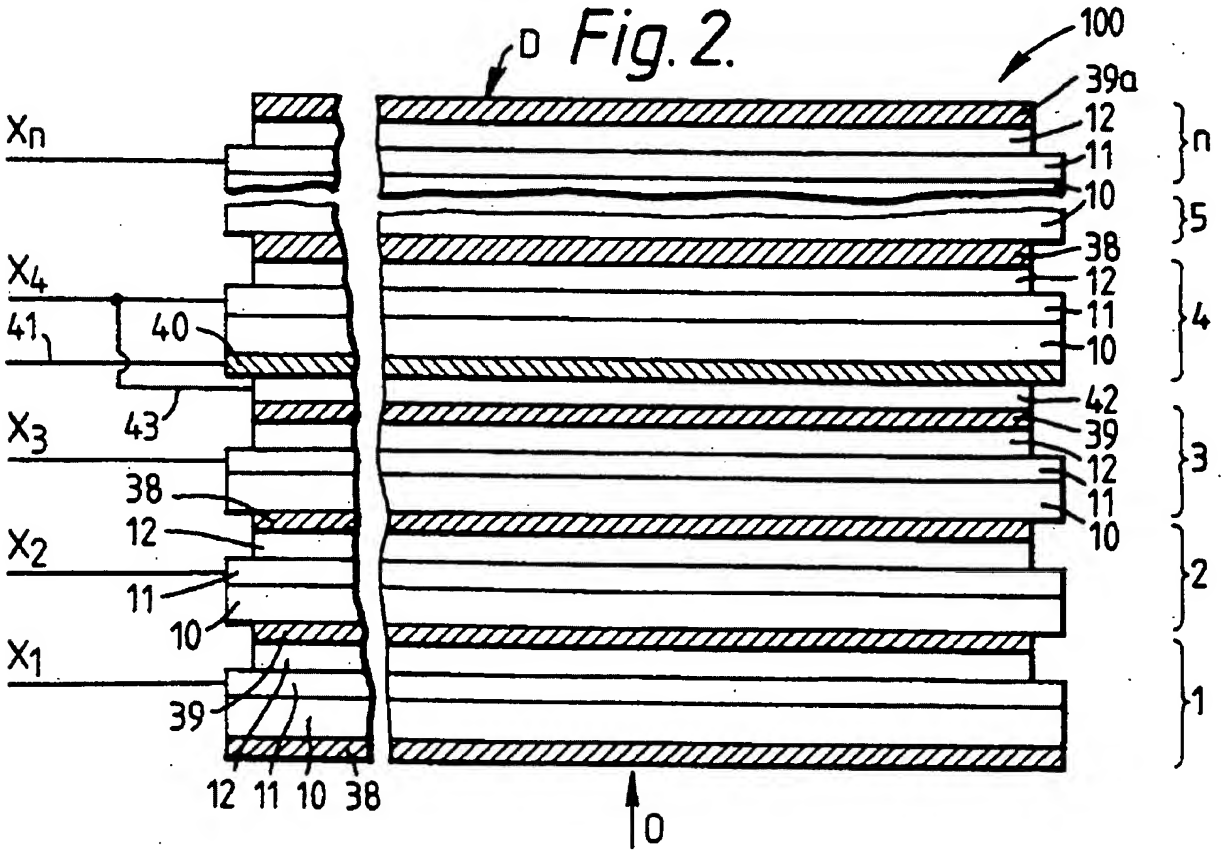
The Official Action rejects claims 33-35, 39, 43-45 and 47 as anticipated by U.S. Patent No. 5,268,679 to Shannon. The Applicant respectfully submits that an anticipation rejection cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claims 33, 43 and 48 have been amended to recite a first substrate provided between a first light source and a second light source; a first optical shutter provided over the first substrate; a second substrate provided adjacent to the first substrate so that the first substrate is provided between the first light source and the second substrate; a second optical shutter provided between the first substrate and the second substrate; a third substrate provided between the second substrate and the second light source; a first optical sensor provided between the third substrate and the second substrate; a second optical sensor provided over the first substrate; a first electronic circuit provided between the third substrate and the second substrate; and a second electronic circuit provided over the first substrate, where a first light emitted from the first light source is inputted into the first optical shutter, and transmission and non-transmission of the first light are controlled by the first optical shutter, where in a case where the first optical shutter transmits the first light, the transmitted first light is inputted into the first optical sensor to convert the first light into a first electric signal by the first electronic circuit, where a second light emitted from the second light source is inputted into the second optical shutter, and transmission and non-transmission of the second light are controlled by the second optical shutter, and where in a case where the second optical shutter transmits the second light, the transmitted second light is inputted into the second optical sensor to convert the second light into a second electric signal by the second electronic circuit. For the reasons provided below, the Applicant respectfully submits that Shannon does not teach the above-referenced features of the present invention, either explicitly or inherently.

The Official Action asserts that "Shannon discloses (Fig. 2) ... wherein a first light emitted from said first light source is inputted into said first optical shutter ((11) of final level 3), and transmission and non-transmission of said first light are controlled by said first optical shutter (that is what shutters do), wherein in a case wherein said first optical shutter ((11) of final level 3) transmits said first light, the transmitted first light is inputted into said first optical sensor ((11) of final level 1) to convert said first light into a first

electric signal by a first electronic circuit (TFT switching elements, ((11) of final level 1) provided over said third substrate ((10) of final level 1) and under said second substrate ((12) of final level 1) ..." (pages 2-3, Paper No. 20060815; Figure 2 of Shannon reproduced below).



That is, the Official Action asserts that the active layer 11 of level 3 corresponds with the first optical shutter of the present claims, and that the active layer 11 of level 1 corresponds with the first optical sensor of the present claims. The Applicant respectfully disagrees and traverses the assertions in the Official Action.

In Shannon, operating light beam 0 is shown in Figure 2 and described at column 4, line 25, and display screen D is also shown in Figure 2 and described at column 3, line 61. As such, it appears that a light beam does not transmit in a direction from display screen D to operating light beam 0. Therefore, in Shannon, it appears that a light transmitted through the optical shutter (active layer 11 of level 3) is not inputted into

the optical sensor (active layer 11 of level 1). Rather, light appears to pass through active layer 11 of level 1, through active layer 11 of level 3 and onto display screen D. Therefore, Shannon does not teach that a first light emitted from a first light source is inputted into a first optical shutter (active layer 11 of level 3), and transmission and non-transmission of the first light are controlled by the first optical shutter (active layer 11 of level 3), and that in a case where the first optical shutter (active layer 11 of level 3) transmits the first light, the transmitted first light is inputted into a first optical sensor (active layer 11 of level 1).

As noted above, Shannon teaches transmission of light from operating light beam 0 to display screen D (Figure 2). However, it appears the Examiner is basing at least part of their rejection on an inappropriate assertion regarding Shannon. Specifically, the Official Action is taking the position that a first light source is "coming from final level 4" and that operating light beam 0 is the second light source (page 2, Paper No. 20060815). The Official Action does not explain how level 4 of Shannon functions as a light source, nor does Shannon appear to teach that level 4 is a light source. Level 4 appears to be made up of a substrate 10, an active layer 11, and a substrate 12. Also, in Shannon, active layer 11 does not appear to include a light source.

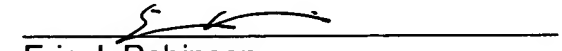
Further, the Official Action relies on active layer 11 of level 3 to teach both a first optical shutter and a second optical sensor, and on active layer 11 of level 1 to teach both a second optical shutter and a first optical sensor (see page 2, Paper No. 20060815). The Applicant respectfully submits that such assertions are improper. Shannon does not teach that each of the active layers 11 of levels 1 and 3 function as both a sensor and a shutter.

Therefore, Shannon does not teach the features of the independent claims of the present application, either explicitly or inherently.

Since Shannon does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly,

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

The Official Action rejects claims 36 and 46 as obvious based on the combination of Shannon and U.S. Patent No. 5,491,571 to Williams. The Official Action rejects claims 48-51 as obvious based on the combination of Shannon and U.S. Patent No. 4,823,178 to Suda. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Please incorporate the arguments above with respect to the deficiencies in Shannon. Williams or Suda does not cure the deficiencies in Shannon. The Official Action relies on Williams to allegedly teach that "at least one of said first optical sensor and said second optical sensor is an amorphous silicon photodiode" (page 4, Paper No.

20060815) and on Suda to allegedly teach "a cathode electrode, and an anode electrode, and an amorphous film ... wherein said thin film [transistor] for reset comprises a semiconductor film, and a gate electrode ... with a gate insulating film" (page 5, Id.). However, Shannon and Williams or Suda, either alone or in combination, do not teach or suggest that Shannon could or should be modified such that a first light emitted from a first light source is inputted into a first optical shutter (active layer 11 of level 3), and transmission and non-transmission of the first light are controlled by the first optical shutter (active layer 11 of level 3), and that in a case where the first optical shutter (active layer 11 of level 3) transmits the first light, the transmitted first light is inputted into a first optical sensor (active layer 11 of level 1). Therefore, Shannon and Williams or Suda, either alone or in combination, do not teach or suggest the features of the independent claims of the present application.

Since Shannon and Williams or Suda do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

New claims 52-54 have been added to recite additional protection to which the Applicant is entitled. The Applicant respectfully submits that new claims 52-54 are in condition for allowance.